

REMARKS

Claims 1-54, 56-70, and 72-84 are now pending in the application. Claims 55 and 71 are cancelled without disclaimer or prejudice to the subject matter contained therein. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-4, 6, 12, 14-17, 19, 25, 27-30, 32, 38, 40-43, 45 and 51 are rejected under 35 U.S.C. § 102(e) as being anticipated by Smeulders (U.S. Pat. No. 6,741,559). This rejection is respectfully traversed.

With respect to claim 1, Smeulders fails to show, teach, or suggest terminating transmission of the first frame when a collision is detected during the transmission, **sending a replace signal from the first port to a switch controller, wherein the replace signal indicates a class of service of the first frame**, determining whether a second frame has a higher class of service than the first frame in response to the replace signal, and transmitting the second frame using the first transmitter before retransmitting the first frame when the second frame has a higher class of service than the first frame. Instead, Smeulders appears to disclose placing high priority frames ahead of low priority frames within transmit buffers.

For anticipation to be present under 35 U.S.C. §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. Scripps Clinic & Res. Found. V. Genentech, Inc., 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the claim must be

inherent or expressly disclosed and must be arranged as in the claim. Constant v. Advanced Micro-Devices, Inc., 7 USPQ.2d 1057 (Fed. Cir. 1988). Here, Smeulders fails to disclose the limitation of sending a replace signal from the first port to a switch controller, wherein the replace signal indicates a class of service of the first frame and determining whether a second frame has a higher class of service than the first frame in response to the replace signal.

As shown in an exemplary embodiment in FIG. 4 of the present application, a network switch 406 includes ports 405A and 405B and a switch controller 402. When a transmitter 412A or 412B detects a collision during transmission of a frame, the respective port sends a replace signal to the switch controller 402. (See Paragraph [0030]). The replace signal indicates a class of service of the collision frame. (See Paragraph [0052]). The switch controller 402 determines which frame to transmit based on the replace signal.

As best understood by Applicant, Smeulders does not appear to disclose this limitation. For example, the Examiner relies on Column 7, Lines 36-57 to disclose transmitting a second frame before retransmitting the first frame. The cited portion of Smeulders states:

When operating in half duplex, in the event of a detected collision during transmission at network port 12a, low priority port 12b, or high priority port 12c, interface 10 preferably re-transmits any frame for which a collision has occurred, in accordance with Ethernet binary exponential back-off, as detailed in IEEE 802.3. However, unlike with the conventional Ethernet protocol, processing element 30 is adapted to delay re-transmission of frames originating at a lower priority port 12b, at network port 12a in favour of frames arriving from high priority port 12c. Thus, high priority frames to be transmitted at a lower priority port 12b and arriving between re-transmission of low priority frames in accordance the Ethernet exponential back-off algorithm pre-empt re-transmission of the lower priority frames. **This may be accomplished by placing high priority**

frames ahead of low priority frames within transmit buffers 20, and transmitting or re-transmitting low priority frames only when no high priority frames are queued within a buffer. After all high priority frames have been transmitted from transmit buffer 20, any low priority frames aborted as a result of the incoming high priority frames may be re-transmitted. (Emphasis added)

In other words, the cited portion of Smeulders appears to disclose rearranging frames within transmit buffers 20 based on priority. In contrast, Applicant's claim 1 recites **sending a replace signal that indicates a class of service of a collision frame (i.e. the first frame) to a switch controller and determining whether a second frame has a higher class of service based on the replace signal.** Merely rearranging frames in a buffer according to priority is not analogous to determining which frame to transmit based on a replace signal.

Applicant respectfully submits that claim 1, as well as its dependent claims, should be allowable for at least the above reasons. Claims 14, 27, and 40, as well as their corresponding dependent claims, should be allowable for at least similar reasons.

REJECTION UNDER 35 U.S.C. § 103

Claims 53-54, 56, 61, 67, 69, 70, 72, 77, and 83 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Saxena (U.S. Pub. No. 2003/0103517). This rejection is respectfully traversed.

Applicant amended claim 53 to incorporate the allowable subject matter of claim 55. Similarly, Applicant amended claim 69 to incorporate the allowable subject matter of claim 71. As such, these rejections are rendered moot.

ALLOWABLE SUBJECT MATTER

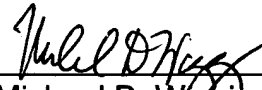
Claims 8-11 and 21-24 are allowed. The Examiner states that claims 34-37, 47-50, 55, 63-66, 71, and 79-82 would be allowable if rewritten in independent form. Applicant thanks the Examiner for the allowable subject matter. Accordingly, Applicant has amended claims 53 and 69 to incorporate the allowable subject matter of claims 55 and 71, respectively. Applicant has amended claims 63-66 and 79-82 to include the limitations of the base claim and any intervening claims. Therefore, claims 53, 63-66, 69, and 79-82 should now be in condition for allowance. Applicant elects to defer amending claims 34-37 and 47-50 into independent form until after the above remarks and amendments are considered.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: December 19, 2006

By: 
Michael D. Wiggins
Reg. No. 34,754

HARNES, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

MDW/dma